

WHAT IS CLAIMED IS:

1. An image pick apparatus capable of photographing with changing over a first mode for recording a plurality of frames and a second mode for 5 recording one frame in accordance with a predetermined action, comprising:

an iris mechanism for changing an amount of light with which an image pickup element is irradiated;

10 a filter unit for changing the amount of the light input; and

a driving unit for driving said iris mechanism and said filter unit, independently,

15 wherein said driving unit drives said filter unit in different manners between the first mode and the second mode.

2. An image pick apparatus capable of photographing with changing over a first mode for recording a plurality of frames and a second mode for recording one frame in accordance with a 20 predetermined action, comprising:

an iris mechanism for changing an amount of light with which an image pickup element is 25 irradiated, by changing an aperture diameter;

a filter unit, having a single density or a plurality of densities, for changing an amount of

incident light;

a unit for driving said iris mechanism and said filter unit, independently; and

5 a control unit for setting, in the second mode, said filter unit in one of states of covering an aperture diameter of said iris mechanism and of withdrawing from the aperture diameter of said iris mechanism.

10 3. An image pick apparatus according to claim 2, wherein said control unit performs drive control of said filter unit so that said filter unit is driven from the state of withdrawing from the aperture diameter of said iris mechanism to the state of covering the whole of the aperture diameter, when the aperture diameter of said iris mechanism is changed so as to be opened in the second mode and the aperture diameter reaches a predetermined aperture diameter.

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20 4. An image pick apparatus according to claim 2, wherein said control unit performs drive control of said filter unit so that said filter unit is driven so as to withdraw from the state of covering the aperture diameter, when the aperture diameter of said iris mechanism is changed so as to be closed up in the second mode and the aperture diameter reaches a

predetermined aperture diameter.

- 5 5. An image pick apparatus capable of photographing with changing over a first mode for recording a plurality of frames and a second mode for recording one frame in accordance with a predetermined action, comprising:
 - 10 an iris mechanism for changing an amount of light with which an image pickup element is irradiated by changing an aperture diameter;
 - 15 a filter unit, having a plurality of densities, for changing an amount of light input;
 - 20 a unit for driving said iris mechanism and said filter unit, independently; and
 - 25 a control unit for performing drive control of said filter unit so that said filter unit is driven from the state in which a first density area of the said filter unit withdraws from the aperture diameter of said iris mechanism to a state in which the first density area of said filter unit covers the aperture diameter when the aperture diameter of said iris mechanism is changed so as to be opened in the second mode and the aperture diameter reaches a predetermined aperture diameter.

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6. An image pick apparatus capable of photographing with changing over a first mode for

recording a plurality of frames and a second mode for recording one frame in accordance with a predetermined action, comprising:

- an iris mechanism for changing an amount of light with which an image pickup element is irradiated, by changing an aperture diameter;
- 5 a filter unit, having a plurality of densities, for changing an amount of incident light;
- 10 a unit for driving said iris mechanism and said filter unit, independently; and
- a control unit for performing drive control of said filter unit so that said filter unit is driven from the state in which a first density area of said filter unit covers the aperture diameter of said iris mechanism to a state in which the first density area of said filter unit withdraws from the aperture diameter when the aperture diameter of said iris mechanism is changed so as to be closed up in the second mode and the aperture diameter reaches a predetermined aperture diameter.
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7. An image pickup apparatus comprising:

- an iris mechanism for changing an amount of light with which an image pickup element is irradiated;
- 25 a filter unit for changing the amount of the light;

a unit for driving said iris mechanism and said filter unit, independently;

an image size changing unit for changing a size of an image to be captured; and

5 a control unit for changing a driving method of said filter unit in accordance with the image size.

8. An image pick apparatus capable of photographing with changing over a first mode for 10 recording a plurality of frames and a second mode for recording one frame in accordance with a predetermined action, comprising:

an iris mechanism for changing an amount of light with which an image pickup element is 15 irradiated by changing an aperture diameter;

a filter unit, having a plurality of densities, for changing an amount of light input;

a unit for driving said iris mechanism and said filter unit, independently;

20 an image size changing unit for changing a size of an image to be photographed in the second mode; and

25 a control unit for consecutively advancing or withdrawing said filter unit towards or from the aperture diameter of said iris mechanism in a case where a predetermined image size is designated by said image size changing unit.

9. An image pick apparatus capable of
photographing with changing over a first mode for
recording a plurality of frames and a second mode for
recording one frame in accordance with a
5 predetermined action, comprising:
an iris mechanism for changing an amount of
light with which an image pickup element is
irradiated, by changing an aperture diameter;
a filter unit, having a plurality of densities,
10 for changing an amount of light input;
a unit for driving said iris mechanism and said
filter unit, independently;
an image size changing unit for changing a size
of an image to be photographed in the second mode;
15 and
a control unit for setting said filter unit in
one of a state of covering the aperture diameter of
said iris mechanism and a state of withdrawing from
the aperture diameter of said iris mechanism in a
20 case where a predetermined image size is designated
by said image size changing unit.

10. An image pick apparatus according to claim
2, wherein said control unit performs drive control
25 of said filter unit so that said filter unit is
driven from the state of withdrawing from the
aperture diameter of said iris mechanism to the state

of covering the whole of the aperture diameter when
the aperture diameter of said iris mechanism is
changed so as to be opened in the second mode and the
aperture diameter reaches a predetermined aperture
5 diameter.

11. An image pick apparatus according to claim
2, wherein said control unit performs drive control
of said filter unit so that said filter unit so as to
10 withdraw from the state of covering the aperture
diameter when the aperture diameter of said iris
mechanism is changed so as to be closed up in the
second mode and the aperture diameter reaches a
predetermined aperture diameter.

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12. A control method of an image pick
apparatus capable of photographing with changing over
a first mode for recording a plurality of frames and
a second mode for recording one frame in accordance
20 with a predetermined action, said apparatus
comprising an iris mechanism for changing an amount
of light input to an image pickup element, a filter
unit for changing an amount of light with which said
image pickup element is irradiated, and a unit for
driving said iris mechanism and said filter unit
25 independently, said method comprising:
independently, said method comprising:

a step of discriminating which of the first mode

and the second mode is selected; and
a step of driving said filter unit in accordance
with the selected mode discriminated in said
discriminating step,

5 wherein a method of driving said filter unit by
said driving unit is different between the first mode
and the second mode.

10 13. A control method of an image pick apparatus
capable of photographing with changing over a first
mode for recording a plurality of frames and a second
mode for recording one frame in accordance with a
predetermined action, said apparatus comprising an
iris mechanism for changing an amount of light with
15 which an image pickup element is irradiated, by
changing an aperture diameter, a filter unit, having
a single density or a plurality of densities, for
changing an amount of light input to said image
pickup element by advancing and withdrawing said iris
20 mechanism towards and from the aperture diameter, and
a unit for driving said iris mechanism and said
filter unit independently, said method comprising:
25 a step of discriminating which of the first mode
and the second mode is selected; and

25 a step of setting said filter unit in one of a
state of covering the aperture diameter of said iris
mechanism and a state of withdrawing from the

aperture diameter of said iris mechanism, when the second mode is selected.

14. A control method of an image pick apparatus
5 capable of photographing with changing over a first mode for recording a plurality of frames and a second mode for recording one frame in accordance with a predetermined action, said apparatus comprising an iris mechanism for changing an amount of light with
10 which an image pickup element is irradiated, by changing an aperture diameter, a filter unit, having a plurality of densities, for changing an amount of light input, and a unit for driving said iris mechanism and said filter unit independently, said
15 method comprising:

a step of discriminating which of the first mode and the second mode is selected; and

20 a step of performing drive control of said filter unit so that said filter unit is driven from a state in which a first density area of said filter unit withdraws from the aperture diameter of said iris mechanism to a state in which the first density area of said filter unit covers the aperture diameter, when the aperture diameter of said iris mechanism is
25 changed so as to be opened in the second mode and the aperture diameter reaches a predetermined aperture diameter.

15. A control method of an image pick apparatus capable of photographing with changing over a first mode for recording a plurality of frames and a second mode for recording one frame in accordance with a
5 predetermined action, said apparatus comprising an iris mechanism for changing an amount of light input to an image pickup element, by changing an aperture diameter, a filter unit, having a plurality of densities, for changing an amount of light input, and
10 a unit for driving said iris mechanism and said filter unit independently, said method comprising:
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a step of discriminating which of the first mode and the second mode is selected; and

20 a step of performing drive control of said filter unit so that said filter unit is driven from a state in which a first density area of said filter unit covers the aperture diameter of said iris mechanism to a state in which the first density area of said filter unit withdraws from the aperture diameter, when the aperture diameter of said iris mechanism is changed so as to be closed up in the second mode and the aperture diameter reaches a predetermined aperture diameter.

25 16. A control method of an image pick apparatus comprising an iris mechanism for changing an amount of light input to an image pickup element, a filter

unit for changing an amount of light input to said
image pickup element, a unit for driving said iris
mechanism and said filter unit independently, and an
image size changing unit for changing an image size,
5 said method comprising:

 a step of discriminating the changed image size;
and

 a step of changing a driving method of said
filter unit in accordance with the image size.

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17. A control method of an image pick apparatus
capable of photographing with changing over a first
mode for recording a plurality of frames and a second
mode for recording one frame in accordance with a
15 predetermined action, said apparatus comprising an
iris mechanism for changing an amount of light with
which an image pickup element is irradiated, by
changing an aperture diameter, a filter unit, having
a plurality of densities, for changing an amount of
20 light input, a unit for driving said iris mechanism
and said filter unit independently, and an image size
changing unit for changing an image size, said method
comprising:

 a step of discriminating the changed image size;
25 and

 a step of consecutively advancing or withdrawing
said filter unit towards or from the aperture

diameter of said iris mechanism in accordance with
the discerned image size.

18. A control method of an image pick apparatus
5 capable of photographing with changing over a first
mode for recording a plurality of frames and a second
mode for recording one frame in accordance with a
predetermined action, said apparatus comprising an
iris mechanism for changing an amount of light input
10 to an image pickup element, by changing an aperture
diameter, a filter unit, having a plurality of
densities, for changing an amount of light input, a
unit for driving said iris mechanism and said filter
unit independently, and an image size changing unit
15 for changing an image size, said method comprising:

a step of changing a size of an image to be
photographed in the second mode;

20 a step of setting said filter unit in one of a
state of covering the aperture diameter of said iris
mechanism and a state of withdrawing from the
aperture diameter of said iris mechanism, when a
predetermined image size is designated.